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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,501	02/27/2007	Siegfried Kogelbauer	FRZ-112US	7010
23122	7590	06/02/2009		
RATNERPRESTIA P.O. BOX 980 VALLEY FORGE, PA 19482			EXAMINER JONAITIS, JUSTIN M	
			ART UNIT 3752	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/581,501	<b>Applicant(s)</b> KOGELBAUER, SIEGFRIED	
	<b>Examiner</b> JUSTIN JONAITIS	<b>Art Unit</b> 3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 3,11,13,15,17,19 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-10,12,14,16,18,21 and 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

Art Unit: 3752

### **DETAILED ACTION**

1. Applicant's arguments with respect to claim 3 (which have been cancelled and included with claim 1), filed March 04 2009, have been considered and will be addressed later in the office action.
2. Claims 1-2, 4-10, 12, 14, 16, 18 remain pending. Claims 3, 11, 19, and 20 have been cancelled. Claims 13, 15 and 17 have been previously withdrawn pursuant to a restriction requirement. Claims 21 and 22 have been added and will be included in the examination below.

### ***Drawings***

3. The drawings were received on 03/04/2009. These drawings are acceptable and overcome the drawing objections of the office action dated 12/04/2008.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 22 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent #5,111,994 to Gonzalez.

Gonzales discloses an assembly for limiting a flow rate comprising:

A receiver (housing (10) and flange (26)) having an inlet port (output port (41) of water channel (40)) and an outlet port (ports (29), (18), and (5)) for a fluid, wherein the inlet port has a larger cross section than the outlet port; and

Art Unit: 3752

A flow rate limiter (booster (14)) disposed within the receiver between the inlet port and the outlet port, the flow rate limiter having a flow body (body portion (16)), wherein the flow body is penetrated by at least one channel (chambers (20a) and (20b)) through which the fluid can flow, the channel having a flow body inlet port having an inlet funnel (funnel shaped input port (100)) and a flow body outlet port, and the flow body having at least one gas channel (air/water channel (23)) with a gas intake (air input port (17)) and a gas outlet port (channel (25)) for a gas to be mixed with a fluid emerging from the channel.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1-2, 4, 6-10, 12, 14, 16, 18, & 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent #5,111,994 to Gonzalez in view of U.S. Patent #6,076,748 to Resch et al.

Art Unit: 3752

In re claim 1 & 21 Gonzales discloses a **flow rate limiter (booster (14))** with a **flow body (body portion (16))** wherein the flow body is penetrated by at least one **channel (Chambers (20a) and (20b))** through which fluid can flow with an **inlet port (inlet of chambers)** and an **outlet port (outlet of chambers)** and is provided with at least one **gas channel (Air/Water Channel (23))** with a **gas intake (air input port (17))** and a **gas outlet port (channel (25))** for a gas to be mixed with the fluid emerging from the channel.

Gonzales fails to disclose the channel and the gas outlet port opening into one plane. Resch et al. discloses a flow rate limiter which has an gas outlet (ozone outlet) and a water channel (passage (84)) which open into the same plane (defined by the examiner as the horizontal plane downstream of both the gas outlet and water channel) and terminate independently (outlet of ozone conduit (32) and orifice (90) of passage (84)).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to change Gonzalez's gas outlet to open into the same plane since Resch et al. [Figure 3, Column 10, lines 21-28] show an equivalent flow pattern can be achieved when used in the art of flow limiting which mixes a gas and a liquid. The selection of either of these known elements for limiting flow and mixing a gas and liquid would be within the level of ordinary skill in the art.

In re claim 2, Gonzales discloses the invention as described above including the inlet **funnel (funnel shaped input port (100))** having a curvature. Curvature being equal to  $F(x) = C \cdot 1/x$  is a standard function of curvature and also an admitted prior art by applicant in order to induce an increased acceleration while promoting mixing.

In re claim 4, Gonzales discloses the invention as described above including the channel having a circular cylindrical design and is arranged axially in the flow body.

Art Unit: 3752

In re claim 6, Gonzales discloses the invention as described above including the flow limiter having at least one **recess (Inner region (16a))** for receiving materials. Please note that the claims are directed to apparatus which must be distinguished from the prior art in term of structure rather function [MPEP 2144]. Hence, the functional limitations “magnetic, inorganic, or organic materials” which are narrative in form have not been given any patentable weight. In order to be given patentable weight, a functional recitation must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997)

In re claim 7, Gonzales discloses the invention as described above including a **receiver (housing (10) and Flange (26))** for limiting flow rate with an inlet port (**Output port (41) of ball (12))** and an **outlet port (Ports (29), (18), and (5))** for a fluid, wherein the inlet port has a larger cross section than the outlet port, the flow rate limiter is arranged between the inlet port and the outlet port.

In re claim 8, Gonzales discloses the invention as described above including the gas intake of the flow rate limiter connecting in the mounted state in alignment with the gas intake channel.

**[Figures 1-3]**

In re claim 9, Gonzales discloses the invention as described above including the channel for the fluid and the gas outlet port opening into a **mixing chamber (Mixing Chambers (20a) & (20b))** that is permeable in the flow direction. **[Figure 3, Column 2, Lines52-53]**

Art Unit: 3752

In re claim 10, Gonzales discloses the invention as described above including the mixing chamber having a truncated cone-shaped cross section.

in re claim 12, Gonzales discloses the invention as described above including where the flow limiter has at least one **grooved section(threads (30))** on the outer surface.

In re claim 14, Gonzales discloses the invention as described above including the outer surface of the receiver having a smooth design.

In re claim 16, Gonzales discloses the invention as described above including the **housing (housing (10))** having at least one **recess (chamber (101))** in the area of the outlet port for receiving material. Please note that the claims are directed to apparatus which must be distinguished from the prior art in term of structure rather function [MPEP 2144]. Hence, the functional limitations “magnetic, inorganic, or organic materials” which are narrative in form have not been given any patentable weight. In order to be given patentable weight, a functional recitation must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997)

In re claim 18, Gonzales discloses the invention as described above including the flow rate limiter for mixing water as the fluid and air as the gas.

Art Unit: 3752

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent #5,111,994 to Gonzalez in view of U.S. Patent #6,076,748 to Resch et al in further view of U.S. Patent #6,283,329 to Bezaire et al.

9. Gonzales discloses the invention as described above but fails to include non return valves arranged in the gas channel. Bezaire et al. teaches it is known to use a ball check assembly to prevent the flow of fluid in the opposite direction by action of the ball with the ball seat. It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a non-return ball valve as taught by Bezaire et al., since Bezaire et al. states in column 9 lines 35-37 that such a modification would prevent the flow of fluid in the opposite direction.

### ***Response to Arguments***

10. Applicant's arguments filed 03/04/2009 have been fully considered but they are not persuasive. In regard to claim 3 which has been cancelled and added into the amended claim 1, applicant states that Resch discloses the outlet of conduit (32) being located slightly downstream of the gas outlet (20), and therefore the two outlets do not open into the same plane.

However, the two outlets as interpreted by the examiner do open into the same plane which was not specifically defined by the applicant in the claims. If the plane is chosen to be defined slightly downstream of both outlets, on the horizontal axis, both outlets have openings which open into the same plane. The argument applicant is making would be valid if the claims stated that the outlet openings located on the same plane, however as described in the claims, the outlets of the openings merely have to open into the same plane, which as stated is defined (by examiner's interpretation) as the horizontal plane located downstream of both outlets.



***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUSTIN JONAITIS whose telephone number is (571)270-5150. The examiner can normally be reached on Monday - Thurs 6:30am - 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571)272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3752

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JUSTIN JONAITIS/  
Examiner, Art Unit 3752  
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